

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A solid-state image pickup apparatus, comprising:

an XY address type solid-state image pickup element in which pixels are arranged in a matrix and color filters ~~having a predetermined color coding~~ are formed ~~for the~~ at respective pixels;

frequency changing means for changing a clock frequency of a system when thinning-out read is specified for the solid-state image pickup element; and

driving means for selecting ~~[[the]]~~ pixels on the basis of the clock frequency changed by the frequency changing means and in a sequence corresponding to ~~[[the]]~~ a color coding of both a row direction and a column direction to read out pixel signals.

2. (Currently Amended) The solid-state image pickup apparatus as recited in claim 1, wherein:

the color coding is ~~repetition of~~ repeated in a unit, the unit being made of two rows and two columns; and

the driving means successively reads out the pixel signals of every third pixel in both a row direction and a column direction.

3. (Currently Amended) The solid-state image pickup apparatus as recited in claim 1, wherein:

the color coding is ~~repetition of~~ repeated in a unit, the unit being ~~made of~~ two rows and two columns; and

the driving means successively reads out ~~[[the]]~~ pixel signals of every other unit, the unit being ~~made of~~ two rows and two columns, in both a row direction and a column direction.

4. (Currently Amended) The solid-state image pickup apparatus as recited in claim 1, wherein:

the color coding is ~~repetition of~~ repeated in a unit, the unit being ~~made of~~ two rows and two columns, and

~~four, 2 (2, units, each unit being made of two rows and two columns, are integrated, and~~ the driving means successively reads out an addition signal of lower left pixels ~~[[in]]~~ corresponding to the units, an addition signal of lower right pixels, an addition signal of upper left pixels, and an addition signal of upper right pixels.

5. (Currently Amended) The solid-state image pickup apparatus as recited in claim 1, wherein:

~~the color coding has a same color in a same column and has repetition of three colors in a row direction, and~~

the driving means successively reads out ~~[[the]]~~ pixel signals of every other pixel in both a row direction and a column direction.

6. (Currently Amended) A solid-state image pickup apparatus, comprising:

an XY address type solid-state image pickup element in which pixels are arranged in a matrix and color filters having a predetermined color coding are formed for the respective pixels; and

a driving means for selecting only specific pixels to keep an arrangement corresponding to a sequence of the color coding and for reading out only specific pixel signals corresponding to the color coding when thinning-out read is specified for the solid-state image pickup element.

7. (Currently Amended) A solid-state image pickup apparatus, comprising: an XY address type solid-state image pickup element in which pixels are arranged in a matrix and color filters having a predetermined color ~~coding~~ repetition are formed ~~for the~~ at respective pixels; and

driving means for performing readout by selecting a plurality of pixels including at least one pixel wherein an adjacent pixel at any side of which is not selected in which at least one pixel is not adjacent to the other pixels and adding a pixel signal corresponding to each of the plurality of pixels corresponding to a next closest pixel of the same color.

8. (Currently Amended) A method of driving a solid-state image pickup apparatus using an XY address type solid-state image pickup element in which pixels are arranged in a matrix and color filters having a predetermined color coding are formed for the respective pixels, comprising the steps of:

changing a clock frequency ~~of a system~~ for readout when thinning-out read is specified for the solid-state image pickup element; and

reading out pixel signals by selecting the pixels on the basis of the changed clock frequency and in a sequence corresponding to the color coding for both a row direction and a column direction.

9. (Currently Amended) The method of driving the solid-state image pickup apparatus as recited in claim 8, wherein:

the color coding is ~~repetition of~~ repeated in a unit, the unit being ~~made of~~ two rows and two columns; and

the pixel signals are successively read out for every third pixel in both a row direction and a column direction.

10. (Currently Amended) The method of driving the solid-state image pickup apparatus as recited in claim 8, wherein:

the color coding is ~~repetition of~~ repeated in a unit, the unit being ~~made of~~ two rows and two columns; and

the pixel signals are successively read out for every other unit, ~~the unit being made of two rows and two columns,~~ in both a row direction and a column direction.

11. (Currently Amended) The method of driving the solid-state image pickup apparatus as recited in claim 8, wherein:

the color coding is ~~repetition of~~ repeated in a unit, the unit being ~~made of~~ two rows and two columns, and

~~four, 2 (2, units, each unit being made of two rows and two columns, are~~ four pixel signals are integrated, and the integration comprising an addition signal of lower left pixels ~~in the units,~~ an addition signal of lower right pixels, an addition signal of upper left pixels, and an addition signal of upper right pixels ~~are successively read out.~~

12. (Currently Amended) The method of driving the solid-state image pickup apparatus as recited in claim 8, wherein:

the color coding has a same color in a same column and ~~has repetition of three colors~~ is repeated in a row direction, and

the pixel signals are successively read out for every other pixel in both a row direction and a column direction.

13. (Currently Amended) A camera system, comprising:

an XY address type solid-state image pickup element in which pixels are arranged in a matrix and color filters having a predetermined color coding are formed for the respective pixels;

a operation mode setting means for selectively setting an all-pixel read mode and a thinning-out read mode to the solid-state image pickup element;

a frequency changing means for changing a clock frequency ~~of a system~~ for reading when the thinning-out read mode is set;

a driving means for reading out pixel signals by selecting the pixels on the basis of the clock frequency changed by the frequency changing means and in a sequence corresponding to the color coding for both a row direction and a column direction when the thinning-out read mode is set; and

a signal processing means for processing an output signal of the solid-state image pickup element on the basis of the clock frequency changed by the frequency changing means when the thinning-out read mode is set.

Please add the following new claim:

14. (New) A solid-state image pickup apparatus, comprising:

an XY address type solid-state image pickup element including pixels arranged in a matrix, color filters having a predetermined color repetition and being formed at

for the respective pixels, and a horizontal register for selectively reading out signals from the pixels;

a frequency changing means for changing a clock frequency of a system when thinning-out read is specified for the solid-state image pickup element; and

a driving means for selecting the pixels on the basis of the clock frequency changed by the frequency changing means and in a sequence corresponding to the color repetition.